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A new species of *Berkleasmium* from Chongqing, China

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Abstract — *Berkleasmium daphniphylli* sp. nov. is described and illustrated. The specimen was collected from the subtropical regions of Chongqing, China. The type specimen is deposited in the Herbarium of the Department of Plant Pathology, Shandong Agricultural University (HSAUP).

Key words — anamorphic fungi, systematics, dead branches

Introduction

The genus *Berkleasmium* was established by Zobel (Corda 1854) with *B. cordeanum* Zobel (= *P. concinnum* (Berk.) S. Hughes) as the type species. Moore (1958, 1959) precisely defined the distinctive features of *Berkleasmium*. *Berkleasmium* produces phaeodictyospores, singly on short, unbranched conidiophores or sessile, in sporodochial conidiomata. Conidia are clavate, ellipsoidal or oblong, rounded at the ends or irregular, and often with a protruding hilum. About 29 species are described in this genus. Zhao & Zhang (2004) described 3 species of *Berkleasmium* occurring on dead branches or rotten wood in subtropical regions of China.

Taxonomic descriptions

Berkleasmium daphniphylli K. Zhang & X.G. Zhang, **sp. nov.** Figure 1

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Sporodochia disseminata, punctiformia, pulvinata, atra, nitentia. Mycelium semper immersum, ex hyphis ramosis, septatis, pallide brunneis, laevibus, 1–2 µm crassis compositum. Conidiophora micronematosa, mononematosa, simplicia vel ramificata, pallides, laevia, usque ad 20 µm longa, 2–3.5 µm crassa, vesiculis 3.5–6.5µm crassis praedita. Cellulae conidiogenae monoblasticae, integratae, terminales, clavatae vel

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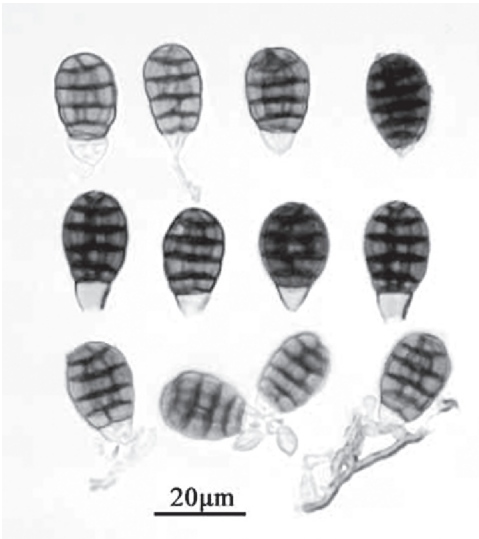

Fig. 1 Conidia and conidiophores of *B. daphniphylli.*

pyriformes, laeves. Conidia solitaria, acrogena, brunnea vel atro-brunnea, ellipsoidea, clavata, obovata vel pyriformia, laevia, cum transversis, longitudinalis, et obliquis septis.

Holotype: On dead branches of *Daphniphyllum oldhamii* (Hemsl.) Rosenth., subtropical forest of Jinyunshan, Chongqing, China, Aug. 2005, J. Ma, HSAUPV$_{0MJ}$0415.

Etymology: in reference to the host, *Daphniphyllum oldhamii.*

Sporodochia on dead wood scattered, punctiform, pulvinate, black, shining. Mycelium mostly immersed in the substratum, composed of branched, septate, pale brown, smooth-walled hyphae, 1–2 μm thick. Conidiophores micronematous, mononematous, simple or branched, hyaline to pale brown, smooth, up to 20 μm long, 2–3.5 μm wide, with one bladderlike swelling 3.5–6.5 μm wide, Conidiogenous cells monoblastic, integrated, terminal, clavate or pyriform inflated, smooth. Conidia solitary, acrogenous, brown to dark brown, ellipsoidal, clavate, obovate or pyriform, smooth, with transverse, longitudinal and oblique septa, 16.5–28 μm long, 10–13 μm thick in the broadest part.

In conidial morphology, this species resembles *B. inflatum* (Holubová-Jechová 1987), *B. taishanense* (Zhao & Zhang 2004) and *Bahugada sundara* (Reddy & Rao 1984). However, the conidia of *B. daphniphylli* are smaller than those of either *B. inflatum* (40–48 × 19.5–21 μm) or *B. taishanense* (22–35 × 15–18.75 μm). In addition, conidia of *B. daphniphylli* have regular septa and fewer longitudinal and oblique septa, as opposed to those of *B. taishanense* which have irregular septa and more longitudinal and oblique septa. At the

same time, the inflated cells of conidiophores in *B. daphniphylli* also help in separating *B. daphniphylli* from *B. inflatum*. The conidia of *B. daphniphylli* are similar to those of *B. sundara*. However, the conidiogenous cells of this taxon are monoblastic, while *B. sundara* are polyblastic.

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